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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,082	07/30/2003	Hea-Chun Lee	21C-0056	2199

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Bloomfield, CT 06002

EXAMINER

HAN, JASON

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,082

Applicant(s)

LEE ET AL.

Examiner

Jason M. Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 14-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 29-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Claims 1-13 and 29-35 have been considered but are moot in view of the new ground(s) of rejection.

The following claims have been construed in light of the specification, but rendered the broadest interpretation as stated by the Applicant within the context of the claim language [MPEP 2111].

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Oyokota et al. (JP 2002-132193 A).
3. With regards to Claim 1, Oyokota discloses a lamp assembly including:
 - At least two lamps [Figure 1: (2)] inherently installed into sockets, whereby the lamps being of a fluorescent bulb type [Abstract], which are commonly known in the art and inherently provide a fluorescent layer formed on an inner surface of the lamp body, a discharge gas disposed in the body, first and second electrodes for providing the lamp body with discharge voltages;

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- A first lamp holder [Figure 1: (8a, 8, 10-11)] having a pipe-shape, whereby a first end portion of the lamp is inserted into and fastened to the first lamp holder;
 - A first board [Figure 1: (14)] that makes contact with the first lamp holder, whereby the first board has a flat plate shape, and is coupled to the first electrode to provide the first electrode with a first discharge voltage; and
 - A first connector [Figure 5: (21); Paragraph 25] installed on the first board to electrically connect the first board to an inverter that generates the first discharge voltage.
4. With regards to Claim 7, Oyokota discloses a second board [Figure 1: (14)], coupled to the second electrode, for providing the second electrode with the second discharge voltage.
5. With regards to Claim 13, Oyokota discloses the number of the lamps [Figure 1: (2)] being four.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyokota et al. (JP 2002-132193 A) as applied to Claim 1 above, and further in view of Mazis (U.S. Patent 4504891).

7. With regards to Claim 2, Oyokota discloses the claimed invention as cited above. In addition, Oyokota inherently teaches the first board including a first insulated body and at least one first conductive pattern electrically connected to the first electrode of each of the lamps [Figure 5; Abstract: (14 – circuit boards)].

Oyokota does not specifically teach the first board having at least two first through-holes formed on the first insulated body, whereby each of the first through-holes receives the first electrode of each of the lamps.

Mazis teaches a first board including:

- A first insulated body [Figure 3: (44); inherent];
- At least one first conductive pattern [Figure 3: (45)] electrically connected to the first electrode of a plurality of lamps; and
- At least two first through-holes [Figure 3: (46)] formed on the first insulated body, whereby each of the first through-holes receives the first electrode of each of the lamps.

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota to incorporate the first board with integral lamp inputs/two through-holes of Mazis in order to simplify manufacturing, as well as facilitate simple and easy installment/replacement of the lamps.

8. With regards to Claim 3, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches a first terminal [Figure 5: (Vo)], coupled to receive the first discharge voltage from the inverter and provide the first discharge voltage to the first connector [Figure 5: (21)].

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9. With regards to Claim 4, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches the first connector [Figure 5: (21)] being installed on the first conductive pattern of the first board [Figure 1: (14); Abstract], and electrically connecting the first conductive pattern of the first board to the inverter [circuit] through the first terminal.

10. With regards to Claim 5, Oyokota in view of Mazis discloses the claimed invention as cited above but does not specifically teach the first electrode being received in each of the first through-holes and the first conductive pattern being soldered with each other and electrically connected to each other.

However, Mazis teaches, "In addition, the assembly includes a pair of ballast transformers with their own wires, and the wires of all of these various components must be interconnected by means of wire nuts, solder connections, or quick-wire connections [Column 1, Lines 24-28."

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota in view of Mazis to incorporate the solder connections between the first electrode and first conductive pattern, so as to provide further support and prevent the electrode from moving within the assembly.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oyokota et al. (JP 2002-132193 A) as applied to Claim 1 above, and further in view of Saito et al. (U.S. Patent 6441874).

Oyokota in view of Mazis discloses the claimed invention as cited above, but does not specifically teach the first lamp holder comprising of rubber.

Saito teaches a lamp holder [Figures 1-7: (9)] having a pipe-shape and comprising of rubber [Column 5, Lines 12-16].

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota in view of Mazis to incorporate the rubber pipe-shaped lamp holder of Saito to provide greater security to the fluorescent lamps, as well as prevent luminance drop via suppressing heat radiation at the electrode portions of the fluorescent lamps so as to secure sufficient amount of mercuric vapor in the whole of said lamps [see Saito: Abstract].

12. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyokota et al. (JP 2002-132193 A) as applied to Claim 7 above, and further in view of Mazis (U.S. Patent 4504891).

13. With regards to Claim 8, Oyokota discloses the claimed invention as cited above. In addition, Oyokota inherently teaches a second board [Figure 1: (14)] including a second insulated body and at least one second conductive pattern electrically connected to the second electrode of each of the lamps [Figure 5; Abstract: (14 – circuit boards)].

Oyokota does not specifically teach the second board having at least two second through-holes formed on the second insulated body, whereby each of the second through-holes receives the second electrode of each of the lamps.

Mazis teaches the second board [Column 3, Lines 2-7] including:

- A second insulated body [Figure 3: (44); inherent]

- At least one second conductive pattern [Figure 3: (45)] electrically connected to the second electrode of each of the lamps; and
- At least two second through-holes [Figure 3: (46)] formed on the second insulated body, whereby each of the second through-holes receives the second electrode of each of the lamps.

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota to incorporate the second board with integral lamp inputs/two through-holes of Mazis in order to simplify manufacturing, as well as facilitate simple and easy installment/replacement of the lamps.

14. With regards to Claim 9, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches a second connector [Figure 5: (22)] installed on the second conductive pattern; and a second terminal [Figure 5: (Vo)], coupled to the second connector to receive the second discharge voltage from the inverter and provide the second discharge voltage to the second connector.

15. With regards to Claim 10, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches the second connector [Figure 5: (22)] electrically connecting the second conductive pattern of the second board to the inverter [circuit] through the second terminal.

16. With regards to Claim 11, Oyokota in view of Mazis discloses the claimed invention as cited above but does not specifically teach the second electrode being received in each of the second through-holes and the second conductive pattern being soldered with each other and electrically connected to each other.

However, Mazis teaches, "In addition, the assembly includes a pair of ballast transformers with their own wires, and the wires of all of these various components must be interconnected by means of wire nuts, solder connections, or quick-wire connections [Column 1, Lines 24-28."

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota in view of Mazis to incorporate the solder connections between the second electrode and second conductive pattern, so as to provide further support and prevent the electrode from moving within the assembly.

17. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oyokota et al. (JP 2002-132193 A) as applied to Claim 7 above, and further in view of Saito et al. (U.S. Patent 6441874).

Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches a second lamp holder [Figure 1: (9a, 9, 10-11)] having a pipe-shape, whereby a second end portion of the lamp is inserted into the pipe-shape to be fastened to the second lamp holder.

However, neither Oyokota nor Mazis specifically teaches the second lamp holder comprising of rubber.

Saito teaches a lamp holder [Figures 1-7: (9)] having a pipe-shape and comprising of rubber [Column 5, Lines 12-16].

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota in view of Mazis to incorporate the rubber pipe-shaped lamp holder of Saito to provide greater security to the fluorescent

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lamps, as well as prevent luminance drop via suppressing heat radiation at the electrode portions of the fluorescent lamps so as to secure sufficient amount of mercuric vapor in the whole of said lamps [see Saito: Abstract].

18. Claims 29-32 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyokota et al. (JP 2002-132193 A) in view of Mazis (U.S. Patent 4504891).

19. With regards to Claim 29, Oyokota discloses a lamp assembly including:

- At least two lamps [Figure 1: (2)] inherently installed into sockets, whereby the lamps being of a fluorescent bulb type [Abstract], which are commonly known in the art and inherently provide a fluorescent layer formed on an inner surface of the lamp body, a discharge gas disposed in the body, and first and second electrodes for providing the lamp body with discharge voltages;
- A first lamp holder [Figure 1: (8a, 8, 10-11)] having a pipe-shape, whereby a first end portion of the lamp is inserted into and fastened to the first lamp holder; and
- A first board [Figure 1: (14)] that makes contact with the first lamp holder and is electrically coupled to the first electrode such that the first end portion of the lamp body is spaced apart from the first board, whereby the first board further includes:
 - = An insulated body [inherent of the circuit board defined in the Abstract];
 - and

= At least one conductive pattern inherently formed on the insulated body and electrically connected to the first electrode of each of the lamps [Abstract].

- A connector [Figure 5: (21); Paragraph 25] installed on the conductive pattern to electrically connect the first board to an inverter [circuit] that generates the first discharge voltage.

Oyokota does not specifically teach the first board having at least two first through-holes formed on the first insulated body, whereby each of the first through-holes receives the first electrode of each of the lamps.

Mazis teaches a first board including:

- A first insulated body [Figure 3: (44); inherent];
- At least one first conductive pattern [Figure 3: (45)] electrically connected to the first electrode of a plurality of lamps; and
- At least two first through-holes [Figure 3: (46)] formed on the first insulated body, whereby each of the first through-holes receives the first electrode of each of the lamps.

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota to incorporate the first board with integral lamp inputs/two through-holes of Mazis in order to simplify manufacturing, as well as facilitate simple and easy installment/replacement of the lamps.

20. With regards to Claim 30, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches a terminal [Figure 5: (Vo)],

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coupled to receive the first discharge voltage from the inverter and provide the first discharge voltage to the connector [Figure 5: (21)].

21. With regards to Claim 31, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches the first connector [Figure 5: (21)] electrically connecting the conductive pattern of the first board to the inverter [circuit] through the first terminal [Figure 5].

22. With regards to Claim 32, Oyokota in view of Mazis discloses the claimed invention as cited above but does not specifically teach the first electrode being received in each of the first through-holes and the conductive pattern being soldered with each other and electrically connected to each other.

However, Mazis teaches, "In addition, the assembly includes a pair of ballast transformers with their own wires, and the wires of all of these various components must be interconnected by means of wire nuts, solder connections, or quick-wire connections [Column 1, Lines 24-28."

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota in view of Mazis to incorporate the solder connections between the first electrode and conductive pattern, so as to provide further support and prevent the electrode from moving within the assembly.

23. With regards to Claim 34, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota inherently teaches teaches the lamp assembly including a second board [Figure 1: (14)] coupled to the second electrode and a second lamp holder [Figure 1: (9a, 9, 10-11)], whereby the second board and the

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second lamp holder have identical shape with the first board and the first lamp holder respectively.

24. With regards to Claim 35, Oyokota in view of Mazis discloses the claimed invention as cited above. In addition, Oyokota teaches the first board [Figures 1 and 3: (14)] being disposed such that a planar surface of the first board is substantially perpendicular to a longitudinal direction of each of the lamps.

25. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oyokota et al. (JP 2002-132193 A) in view of Mazis (U.S. Patent 4504891).

Oyokota in view of Mazis discloses the claimed invention as cited above, but does not specifically teach the first lamp holder comprising of rubber.

Saito teaches a lamp holder [Figures 1-7: (9)] having a pipe-shape and comprising of rubber [Column 5, Lines 12-16].

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Oyokota in view of Mazis to incorporate the rubber pipe-shaped lamp holder of Saito to provide greater security to the fluorescent lamps, as well as prevent luminance drop via suppressing heat radiation at the electrode portions of the fluorescent lamps so as to secure sufficient amount of mercuric vapor in the whole of said lamps [see Saito: Abstract].

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

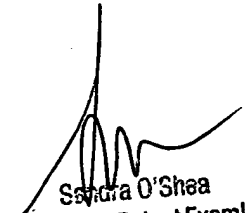
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M Han
Examiner
Art Unit 2875

JMH (5/2/2006)



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800